

GORUSHKIN, V.I., doktor tekhn.nauk; MALKHASI'YAN, I.V., inzh.; AZAR'YEV,  
D.I., kand.tekhn.nauk

Electric power engineering in Finland. Elektrichestvo no.1:  
86-89 Ja '61. (MIRA 14'4)  
(Finland--Electric power)

AZAR'YEV, D.I., kand.tekhn.nauk, dotsent (Moskva)

Long-distance electric power transmission with magnetized  
reactor-transformers and forced capacitor banks. Elektrichestvo  
no.7:24-30 JI '61. (MIRA 14:9)  
(Electric power distribution)

PHASE I BOOK EXPLOITATION

SOV/6136

Azar'yev, Dmitriy Ivanovich

Matematicheskoye modelirovaniye elektricheskikh sistem (Mathematical Simulation of Electric Systems). Moscow, Gosenergoizdat, 1962. 206 p.  
7500 copies printed.

Ed.: L. A. Zhukov; Tech. Ed.: G. Ye. Larionov.

**PURPOSE:** This book is intended for engineering and technical personnel concerned with problems of the design and study of electric-power systems.

**COVERAGE:** The book discusses modern electric systems and methods for studying them with the aid of mathematical simulation. Basic stages in the development of mathematical simulation are considered. Descriptions are given of models of a-c electric-power systems, including dynamic models (with automatically operating generator stations and loads and automatic numerical recording of regimes and processes) and analog computers. Mathematical-simulation

Card 1/12

AZAR'YEV, D.I., kand. tekhn. nauk (Moskva); VENIKOV, V.A., prof.,  
doktor tekhn. nauk (Moskva); LITKENS, I.V., dotsent, kand.  
tekhn. nauk (Moskva); MAMIKONYANTS, L.G., prof., doktor  
tekhn. nauk (Moskva); PORTNOY, M.G., kand. tekhn. nauk  
(Moskva); SGVALOV, S.A., kand. tekhn. nauk (Moskva)

Fundamentals of the determination of power system stability.  
Elektrichestvo no.11:1-8 N '63. (MIRA 16:11)

L 9828-66 5. ( )/EHA(h)

ACC NR: AP6003970

SOURCE CODE: UR/0104/65/000/005/0093/0093

AUTHOR: Sarkisov, M. A.; Rokotyan, S. S.; Uspenskiy, B. S.; Sharov, A. N.; Zhulin, I. V.; Fedoseyev, A. M.; Korolev, M. A.; Kheyfita, H. E.; Yermolenko, V. M.; Petrov, S. Ya.; Azar'yev, D. I.; Krikunchik, A. B.; Polyakov, I. P.; Sazonov, V. I.; Khvoshchinskaya, Z. G.; Kartsev, V. L.; Smelyanskaya, B. Ya.; Kozhin, A. N.; Losev, S. B.; Dorodnova, T. N.; Rubinchik, V. A.; Smirnov, E. P.; Rudman, A. A.

ORG: none

TITLE: Abram Borisovich Chernin

SOURCE: Elektricheskiye stantsii, no. 5, 1965, 93

TOPIC TAGS: electric engineering, electric engineering personnel

ABSTRACT: An engineer since 1929, A. B. Chernin has worked for years in developing new techniques and equipment for relay protection of electric power systems. In this 60th birthday tribute, he is credited with leading the group which produced the directives on relay protection, contributing to the development of a method for calculating transient processes in long distance 400-500 kv power transmission lines and with aiding in planning of the electric portions of power stations, substations and power systems. The results of his engineering and scientific work have been published 46 times, he is a doctor of technical sciences (since 1963), and has taught for 30 years at the Moscow Power Institute. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 09 / SUEM DATE: none

HW  
Card 1/1

50  
B

ACC NR: A7007595

SOURCE CODE: UR/0104/66/000/008/0095/0096

26

AUTHOR: Chuprakov, N. M.; Dorovoy, A. A.; Postnikov, N. A.; Malychev, A. A.;  
Magidson, E. M.; Sin'chugov, P. I.; Zeylidzon, Ya. D.; Barchaninov, G. S.;  
Yermolenko, V. M.; Vasil'yev, A. A.; Sokolov, N. I.; Ul'yanov, A. S.;  
Fedoseyev, A. M.; Sarkisov, M. A.; Rokotyan, S. S.; Azar'yev, D. I.; Arson,  
G. S.; Dubinskiy, L. A.; Zhulin, I. V.; Kolpakova, A. I.; Antoshin, N. N.  
Krikunchik, A. D.; Kuchkin, M. D.; Preobrazhenskiy, N. Ye.; Reut, M. A.;  
Kheyfits, M. E.; Sharov, A. N.; Yakub, Yu. A.; Gorbunov, N. I.; Shurmukhin,  
V. A.; Beschinskiy, A. A.

ORG: none

TITLE: Boris Sergeyovich Uspenskiy (on his 60th birthday)

SOURCE: Elektricheskiye stantsii, no. 8, 1966, 95-96

TOPIC TAGS: hydroelectric power plant, electric engineering personnel.

SUB CODE: 10

ABSTRACT: B. S. Uspenskiy was born in June 1906. He graduated from  
the State Electric Machine Building Institute in 1928 as an electric  
installation engineer. He worked in the State Electro-Technical Trust  
for four years, then in the All-Union ElectroTechnical Union, where he  
planned power construction units. Plans which he made up at that time  
for the electrical portion of electrical stations and sub-stations are  
still being used. He was involved in planning and installation of the  
electrical portion of hydro-electric power stations and powerful pumping  
stations in the Moscow-Volga Canal. During the war, he was in charge in  
installation of the Krasnogorskaya Heat and Electric Power Station, the  
planning of the Urals Hydro-Electric Power Station and other projects. He

Card 1/8

09281534

AZARV, Sergei Il'ich.

(BSKHH) The military service of the Red Army chemist. Moskva, Gos. voen. izd-vo, 1935. 203 p. (47-43820)

UG447.A9

AZAR<sup>Y</sup>EV, Sergei Il'ich.

Field service of a Red Army chemical warfare soldier. Moskva, Gos. voen.  
izd-vo, 1936. 207 p. (52-48265)

UG447.A9 1936

Александр, Сергей Ильич

Chemical warfare Moskva, Jos. voen. ind-vo, 1959. 71 p. (Mastovais voennia biblioteka) (50-45483)

UB447.A95 1939

AZAR, Ev. Serge. 1941.

The military service of the Red Army chemist. Moskva, Voen. izd-vo, 1941. 237 p.  
(50-46924)

UG447.A9 1941

JACQUOT, P.E.; NIKONOV, B.A.[translator]; VAYSMAN, B.S.[translator]; AZAR'YEV,  
S.I.; DEYEV, M.N., redaktor; SHAPOVALOV, V.I., tekhnicheskii redaktor.

[Peripheral strategy and the atomic bomb. Translated from the French]  
Periferiinalia strategii i atomnaia bomba. Perevod s frantsuzskogo  
B.A. Nikonova i B.S.Vaismana. Pod red. S.I.Azar'eva. Moskva, Izd-vo  
inostranoi lit-ry, 1956. 138 p. (MIRA 9:6)  
(Strategy) (Military policy)

ROUGERON, Camille; AZAR'VEV, S.I., red.

[Utilization of energy from a thermonuclear explosion] Is-  
pol'zovanie energii termoiadernogo vzryva. Pod red. S.I.  
Azar'eva. Translated from the French. Moskva, Izd-vo  
inostr. lit-ry, 1957. 295 p. (MIRA 15:2)  
(Atomic bomb) (Hydrogen bomb)

*Azatova, L. A.*

Subject : USSR/Power AID P - 4038  
Card 1/1 Pub. 26 - 27/31  
Author : Azatova, L. A., Eng.  
Title : "Connecting the frequency relay of automatic frequency regulator systems by the EPA-15 voltage stabilizer."  
Periodical : Elek. sta., 11, 58-59, N 1955  
Abstract : Tests made with frequency relays are reported. These tests determined the interdependence of the voltage on the relay and the voltage in the network, and the possible defects of the relay connected by a stabilizer or without it. Three diagrams.  
Institution : None  
Submitted : No date

SHEVCHENKO, V.A., inzh.; AZATOVA, L.A., inzh.

Selecting the optimum boiler set-up for an electric power  
station. Elek.sta. 31 no.2:21-24 F '60.

(Boilers) (Electric power plants) (MIRA 13:5)

AZATOVA, L.A., inzh.

Use of time delay in an automatic frequency control system.  
Elek. sta. 34 no.1:86-87 Ja '63, (MIRA 16:2)  
(Frequency regulation) (Electric protection)  
(Electric power distribution)

SHEVCHENKO, V.A., inzh.; AZATOVA, L.A., inzh.

Losses caused by sudden interruption of the power supply of  
industrial enterprises. Prom. energ. 20 no.2:15-22 '65.

(MIRA 18:4)

AZATYAN, A.A.

USSR/Human and Animal Physiology - Blood Circulation.

V-5

Abs Jour : Ref Zhur - Biol., No 1, 1958, 3599

Author : A.A. Azatyan

Inst : Uzbek Institute of Physiotherapy.

Title : Data on the Pathogenesis of Experimental Hypertension in Female Dogs Obtained by the Means of Roentgeno-Castration.

Orig Pub : Tr. Uzb. n. i. in-ta kurortol. i fizioterapii, 1955, 13, 49-56

Abstract : Seven dogs (3-4 year old) were castrated by the following procedure: they received a single dose of X-rays - 600 r over each ovary. In 6 of the dogs, blood pressure - which was determined in the femoral artery 34-35 days after castration - was increased by 24-45 mm of the mercury column (especially the diastolic pressure). In half of the cases, biological blood tests performed after

Card 1/2

AZATYAN, A.A., dotsent

Prospects for the treatment of gynecological patients at bal-  
neological health resorts of Uzbekistan. Med.zhur.Uzb. no.7:  
28-31 JI '58. (MIRA 13:6)

1. Iz Uzbekskogo gosudarstvennogo nauchno-issledovatel'skogo  
instituta kurortologii i fizioterapii imeni Semashko (direktor -  
dotsent Ya.K. Muminov).

(UZBEKISTAN--HEALTH RESORTS, WASHING PLACES, ETC.)  
(GENERATIVE ORGANS, FEMALE--DISEASES)

AZAT'YAN, A.A.

History of the first scientific societies in Turkestan. Izv.Uz.fil.  
Geog.ob-va 1:175-178 '55. (MIRA 10:3)  
(Asia, Central--Scientific societies)

AZAT'YAN, A.A.; DONTSOVA, Z.N.

P.P. Semenov-Tian-Shanskii; fortieth anniversary of his death. Izv.  
Uz.fil.Goog.eb-va 1:178-181 '55. (MLRA 10:3)  
(Semenov-Tian-Shanskii, Petr Petrovich, 1827-1914)

AZAT'YAN, Armen Arshavirovich; PROKHODTSEVA, S.Ya., redaktor; NOGINA, N.I.,  
tekhnicheskiy redaktor

[A.P.Fedchenko, geographer and traveler] A.P.Fedchenko, geograf i  
puteshestvennik. Moskva, Gos. izd-vo geogr. lit-ry, 1956. 125 p.

(Fedchenko, Aleksei Pavlovich, 1844-1873) (MLRA 9:8)

AZAT'YAN, Arsen Arshavirovich; BABUSHKIN, L.N., prof., red.; TROPIMOV,  
F.D., red.; AKHTYAMOVA, S., tekhn.red.

[Outstanding explorers of the nature of Central Asia: second  
half of the 19th century] Vydaiushchiesia issledovateli prirody  
Srednei Azii; vtoraiia polovina XIX v. Pod red. L.N.Babushkina.  
Tashkent, Gos.izd-vo "Sredniaia i vysshiaia shkola" UzSSR. Pt.1.  
1960. 170 p. (MIRA 14:2)  
(Soviet Central Asia--Discovery and exploration)

AZAT'YAN, A.A.

Ol'ga Aleksandrovna Fedchenko (1845-1921), explorer of Central  
Asia. Izv.Usb.fil.Geog.ob'va 4:100-103 '60. (MIRA 13:7)  
(Fedchenko, Ol'ga Aleksandrovna, 1845-1921)

OSHANIN, Lev Vasil'yevich, prof.; AZAT'YAN, Armen Arshavirovich, dots.;  
KOROVIN, Ye.P., doktor biolog. nauk, otv. red.; PROKHODTSEVA,  
S.Ya., red.; LOBANOVA, R.S., tekhn. red.

[Vasilii Fedorovich Oshanin; an outline of his life and activities]  
Vasilii Fedorovich Oshanin; ocherki zhizni i deiatel'nosti. Moskva,  
Gos. izd-vo geogr. lit-ry, 1961. 93 p. (MIRA 14:10)  
(Oshanin, Vasilii Fedorovich, 1844-1917)

AZAT'IAN, A.A.

New data on the activity of the first scientific societies of  
the prerevolutionary Turkestan. Trudy Inst.ist.est.i tskh.  
37:109-117 '61. (MIRA 14:10)  
(Turkestan--Scientific societies)

AZAT'YAN, A.A.; DONTSOVA, Z.N.

E.P.Korovin's views on geography. Trudy TashGU no.187:11-16  
'61. (MIRA 15:3)

1. Tashkentskiy gosudarstvennyy universitet imeni Lenina.  
(Asia, Central--Geographical research)

AZAT'YAN, A.A.

Several problems of historical geography. Izv.Uzb.fil.Geog.ob-va  
6:119-122 '62. (MIRA 15:8)  
(Geography, Historical)

AZAT'YAN, A.A.

What was known about the geography of Central Asia prior to the second half of the 19th century. Izv.Uzb.fil.Geog.ob-va 6:123-134 '62. (MIRA 15:8)

(Soviet Central Asia—Geography)

AZAT'YAN, A.A.

Evaluating the "classical period" in studying the nature of  
Central Asia during the second half of the 19th century.  
Nauch. trudy TashGU no.193:28-37 '62. (MIRA 16:7)

(Asia, Central—Geographical research)

L 13380-63 EMT(1)/EDS/ES(w)-2 AFFTC/ASD/SSD Pab-4  
ACCESSION NR: AP3002739 S/0120/63/000/003/0142/0145

AUTHOR: Azatyán, A. A.; Badalyán, G. V.; Yeritsyan, G. N.

63

TITLE: Producing constant magnetic fields<sup>2)</sup> of a specified pattern [Report at the Fourth Vuz Scientific Conference on Electron Accelerators, Tomsk, 1962]

SOURCE: Pribory\* i tekhnika eksperimenta, no. 3, 1963, 142-145

TOPIC TAGS: constant magnetic field

ABSTRACT: A 2-winding nonsalient-pole motor stator was used as an electromagnet for producing predetermined patterns of constant-in-time magnetic field. By varying the winding types and surveying the resulting fields with harmonic-exploring coils, a number of patterns were determined and plotted. Technical details of the stators, windings, and measuring equipment are reported. "The authors are thankful to Ye. N. Danil'tsev for his kind permission to use his formula before its publication." "In conclusion, the authors wish to thank F. Ts. Kechyan for his assistance." Orig. art. has: 5 figures and 3 formulas.

ASSOCIATION: Fizicheskiy institute AN ArmSSR (Institute of Physics, AN ArmSSR)

SUBMITTED: 30May62

DATE ACQ: 12Jul63

ENCL: 00

SUB CODE: PH

NO REV SOV: 003

OTHER: 000

Card 1/1

GVOZDETSKIY, N.A.; FEDCHINA V.N.; AZAT'YAN, A.A.; DONTSOVA, Z.N.;  
FEDOSEYEV, I.A., otv. red.; YEASKOV, V.A., red.; SOLOV'YEV,  
A.I., red.

[Russian geographical explorations of the Caucasus and  
Central Asia in the 19th and the beginning of the 20th  
century] Russkie geograficheskie issledovaniia Kavkaza i  
Srednei Azii v XIX - nachale XX v. [By] N.A.Gvozdet'sii i  
dr. Moskva, Nauka, 1964. 156 p. (MIRA 17:11)

AGATYIH, A.A.

Study of the pathogenesis of experimental hypertension in female dogs caused by X-ray castration. Trudy Ur.gos.nauch.-inst. kur. i fizioter. 13:49-56 '56. (MIRA 18:2)

AZAT'YAN, A. D.

FA 22/49T88

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USSR/Radio  
Vacuum Tubes  
Frequency Changers

Oct 48

"Use of the 6A10 and 6SA7 Tubes," A. D. Azat'yan,  
5 pp

"Radio" No 10

Construction of 6A10 heptode was described in  
"Radio" No 8, 1948. Azat'yan discusses problems  
of using 6A10 and 6SA7 heptodes, and their  
operating characteristics when used for converting  
and shifting frequencies, with four diagrams.

IC

22/49T88

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AZAT'YAN, A. D.

Azat'yan, A. D. - "Pentodes," Radio, 1949, No. 2, p. 53-55

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

AZAT'YAN, A. D.

PA 42/49T103

USSR/Radio Receivers  
Vacuum Tubes

Apr 49

"2K2M and 2Zh2M," A. D. Azat'yan, 2 pp

"Radio" No 4

The 2K2M and 2Zh2M are miniature pentodes designed for battery-powered radio receivers. Five out of six tubes in the battery-powered "Rodina" receiver use this type tube. Maximum plate voltage is 160 volts, maximum screen voltage 90 volts, and maximum power developed by the tubes 0.5 watt. In practice, because of the battery supply, plate voltages of 45 and 60 volts are most often used.

42/49T103

AZAT'YAN, A. D.

20699. Azat'yan, A.D. Lampa 6 AZh5. Radio, 1949, No. 6, s. 50-51

SO: LETOPIS ZHURNAL STATEY - Vol. 28, Moskva, 1949

AZAT'YAN, A. D.

PA 66/49798

USSR/Radio - Vacuum Tubes, Tetrode  
Radio Receivers Aug 49

"The 30P1M Beam Tetrode," A. D. Azat'yan, 2 1/2 pp  
"Radio" No 8

Gives characteristics of the 30P1M beam tetrode, which is used in the output stages of AC-DC receivers. This tube differs from other beam tetrodes because of its higher filament voltage (30 v), higher insulation resistance between the cathode and filament, and lower plate voltage. The relatively high power output (7 watts) at the low plate voltage (110 v) is due to the increased plate current (70 ma), which was obtained by decreasing the distance between the plate and cathode, increasing the working cathode surface, and increasing the filament voltage.

66/49798

AZAT'YAN, A.

PA 1/50T88

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USSR/Radio - Radio Receivers  
Superheterodynes

Sep 49

"The 1K1P Miniature Pentode," A. Azat'yan, 2 pp

"Radio" No 9

The 1K1P pentode is primarily intended for RF amplification in battery-powered radio receivers. It is a variable-mu pentode and therefore is suitable for use in battery superheterodyne receivers with automatic sensitivity (volume) control (ARCH). Gives operating conditions for the tube for plate voltages of 45, 67.5, and 90 volts, and the family of characteristic curves for the tube when used as a triode.

1/50T88

AZAT'YAN, A.

PA 150T108

USSR/Radio - Vacuum Tubes  
Radio Receivers

Oct 49

"Double Triodes," A. Azat'yan, 5 pp

"Radio" No 10

Discusses parameters of the 6N7G for various types of operation. At present, two more types of twin triodes with octal sockets are being produced, the 6N8M and the 6N9M, which have considerably different parameters from the 6N7G and separate leads for each cathode. The 6N7G develops 4-watt power at a plate voltage of 200-210 when used in output stage of the A-695 receiver of the ZIS-110 automobile.

150T108

AZAT'YAN, A.

177181

USSR/Radio - Books

Nov 50

"New Books"

"Radio" No 11, pp 63, 64

Abstracts of "New developments in Radio Engineering,"  
by A. A. Kulikovskiy, edited by Acad A. I. Berg,  
Gosenergoizdat, Moscow/Leningrad, 1950, 120 pp,  
3.75 rubles for short- and ultrashort-wave and tele-  
vision amateurs, and "Detector Receivers," by V. V.  
Yenyutin, Svyaz'izdat, Moscow, 1950, 56 pp, 1.25  
rubles, for amateur radio designers.

177182

PA 190T105

AZAT'YAN, A.

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USSR/Radio - Tubes, Vacuum  
Characteristics

Jun 51

"The 6P9 Pentode," A. Azat'yan

"Radio" No 6, pp 46, 47

Describes structures and characteristics of the 6P9 (6AG7), which was designed especially as video-signal amplifier for television equipment. Advantages of tube: high transconductance, high emission, high plate power dissipation and low through capacitance.

190T105 ✓

AZAT'YAN A.

PI 17

Aug 51

USSR/Radio - Television  
Tubes

"Use of the 6P9 Pentode," A. Azat'yan  
"Radio" No 8, pp 50-52

Describes and gives circuit values for 3 types  
of operation of the 6P9 as a Class A video  
amplifier.

194T118

1. AZAT'YAN, A.
2. USSR (600)
4. Vacuum Tubes
7. New radio tubes; finger-like tubes for network receivers. Radio no. 10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, JANUARY 1953. Unclassified.

1. AZATYAN, A.
2. SSSR (600)
4. Vacuum Tubes
7. New radio tubes.  
Radio No. 11, 1952

9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

1. AZAT'YAN, A.
2. USSR (600)
4. Vacuum Tubes
7. 4P1L pentode vacuum tube. Radio, No. 2, 1953.

The 4P1L is a high-frequency pentode with low filament power drain, which makes it useful as an amplifier in kolkhoz wind radio centers. In triode connection with a plate current of 40 ma, transconductance is 6 ma/v, amplification factor is 8.5, and internal resistance is 1300 ohms. An M-type directly-heated oxide cathode is used in the tube. Tube life is at least 1000 hours.

253T96

9. Monthly List of Russian Accessions, Library of Congress, May 1953, Uncl.

AZAT'YAN, A.

USSR/ Electronics - Beam tetrodes

Card 1/1 : Pub. 89 - 24/28

Authors : Azat'yan, A.

Title : ~~How a beam tetrode works~~  
How a beam tetrode works

Periodical : Radio 1, 54-57, Jan 1954

Abstract : The construction and operation of a beam tetrode are described.  
Diagrams; graphs.

Institution: .....

Submitted: .....

AZAT'YAN, A.

USSR/ Electronics - Tetrodes

Card 1/1 Pub. 89 - 20/27

Authors : Azat'yan, A.

Title : The 6P60 beam tetrode

Periodical : Radio 2, 42-46, Feb 1954

Abstract : Beam tubes of the 6P60 type are described. The construction, of these tubes, specifications and operational characteristics, which are given in the form of graphs on the 3rd page of the folder, are discussed. The use of these tubes as low-frequency amplifiers and multipliers is considered. Diagrams; graphs; tables.

Institution: .....

Submitted: .....

AZATYAN, A.

USSR/Electronics - Diodes

Card 1/1

Authors : Azatyan, A. and Tolkacheva, S.

Title : Characteristics of Germanium Diodes of the Type ДГ-Ц (DG-Ts)

Periodical : Radio 5, 39 - 41, May 1954

Abstract : The article begins with a reference to an article entitled. "Germanium Diodes", by Puzhay and Goldenberg, published in Radio No. 5, 1953. The present article stresses the advantages of the germanium diodes over the vacuum tube type diodes. A detailed table listing the parameters of the DG-Ts type diodes, and graphs are featured. One of these graphs gives the comparative volt-ampere characteristics of several DG-Ts (germanium type) diodes and of analogous vacuum tube type diodes. On another graph, the germanium diodes' frequency characteristics are given, while the remaining graph shows the diodes' volt-ampere characteristics for various temperatures.

Institution : ....

Submitted : ....

AZATYAN, A. (D)

USSR/Electronics

Card : 1/1 Pub. 89 - 15/24

Authors : Azatyan, A. and Tolkachev, S.

Title : Use of Germanium diodes of the DG-Ts(47 - 11 ) type

Periodical : Radio 6, 34 - 37, June 1954

Abstract : Germanium diodes of the DG-Ts type, having a high breakdown-voltage and low resistance to DC current, are discussed. Methods of detection (by means of these diodes) of amplitude-modulated and frequency-modulated signals in radio receivers and of television picture signals, as well as other applications of diodes, such as their use for increasing the efficiency of oscillators, are described in detail. Diagrams; graphs.

Institution : ...

Submitted : ...

AZAT'YAN, A.

USSR/ Electronics - Radio receivers and transmitters

Card 1/1 Pub. 89 - 10/29

Authors : Azat'yan, A.; Ushansv, V.; Levit, N.; Sodin, L, and Baramidze, L.

Title : "Urozhay Y-2" radio receiver and transmitter

Periodical : Radio S, 24-26, Sep 1954

Abstract : A detailed description, with circuit diagrams, of the "Urozhay Y-2" radio transmitter and receiver is presented. It is a portable transmitting and receiving amplitude-modulation station, redesigned from a similar set named the "Urozhay Y-1". The improvements of the converted set, its auxiliary equipment, power-supply and operation are described in detail. Diagrams.

Institution : ...

Submitted : ...

AZAT'YAN, A.

USSR/ Electronics

Card 1/1 Pub. 89 - 23/31

Authors : Azat'yan, A.

Title : A method of converting a single-tube amplification system into a push-pull system

Periodical : Radio 11, 42-43, Nov 1954

Abstract : A method is described for decreasing the overall amount of power consumed from the plate battery by a battery type receiver. This method is based on a system of producing two audio-frequency voltages at phases shifted through 180°. A special system is employed for detecting the radio-frequency modulated signals in such a way that two equal A-F out-of-phase voltages are obtained at the detector's output. This system permits certain variations which the designer may resort to depending on the method of detection employed. Circuit diagrams.

Institution : ...

Submitted : ...

AZAT'YAN, Arseniy Dzhelymsovich; TOLKACHEVA, Samuella Abramovna; SHUL'GIN,  
K.A., redaktor; SKVETSOV, I.M., tekhnicheskiy redaktor

[Germanium diode model DG-TS] Germaniye diody DG-Ts. Moskva,  
Gos.energ.izd-vo, 1955. 37 p. (Massovaya radiobiblioteka, no.236)  
(Radio--Apparatus and supplies) (MLRA 9:3)

A D AZAT'YAN, PA GOVOROV, V F RACHENKO, N K MYASNIKOV, I A LAMOVA, D I AGAFONOVA,  
YE A SORVIN, and A I KABANOV

"Development of Recommendations of the Selection of Types of Electrovacuum Devices in Standard Circuits Used in Radio Engineering Apparatus and on the Procedure for Determination of Optimal and Limiting Allowable Operating Conditions for Some Types of Receiver-Amplifier Tubes in Mass Production Which Have Prospects for these Applications" from Annotations of Works Completed in 1955 at the State Union Sci. Res. Isut; Min. of Radio Engineering Ind.

So: B-3,080,964

AZATYAN, A.

USSR/ Electronics - Radio stations

Card 1/1      Pub. 89 - 11/24

Authors      : Azatyan, A., and Levit, M.

Title        : Alterations in the UROZHAY U-1 radio station for economic reasons

Periodical   : Radio 5, 24 - 27, May 1955

Abstract    : Report is presented on the technical-economical changes made in the UROZHAY U-1 radio broadcasting station which serves mainly agriculture with weather broadcasts and other farming news. Tables; diagram; drawings.

Institution : .....

Submitted  : .....

Azatyayn, A.

USSR/ Electronics - Tubes

Card 1/1 Pub. 89 - 21/27

Authors : Azatyayn, A.

Title : ~~.....~~  
New pencil tubes

Periodical : Radio 8, 47-49, Aug 1955

Abstract : General data are given regarding the newly manufactured economical pencil tubes (1A2P, 1K2P, 1B2P and 2P2P) with filament current of 30 ma at 1.2 v. The cathodes of all four types of tubes are prepared from oxide coated tungsten filaments, 12 microns in thickness. The new tube complect includes the 1A2P heptode, the HF-elongated 1K2P pentode, the 1B2P diode-pentode and the 2P2P input pentode. Tables; graphs.

Institution : .....

Submitted : .....

AID P - 4949

Subject : USSR/Electronics

Card 1/1 Pub. 89 - 16/18

Author : Azat'yan, A.

Title : Damping diode GTs10P

Periodical : Radio, 8, 50-51, Ag 1956

Abstract : The diode described by the author is a subminiature tube with an oxide film cathode and an indirect heater. The author presents its electric characteristics as compared with the American made diode GAX4-GT and claims superiority for the Soviet product. Two drawings, 2 tables.

Institution : None

Submitted : No date

Azat'yan, A.

107-12-37/46

AUTHOR: Azat'yan, A.

TITLE: Triode-Heptode 6M1П  
(Triod-heptod 6M1П )

PERIODICAL: Radio, 1956, Nr12, pp. 50-52 (USSR)

ABSTRACT: A detailed description, ratings, and max operational values of the type 6M1П Soviet-make triode-heptode. The primary purpose of this bantam-size tube is frequency conversion and AVC for a-c radio receivers.

Heater voltage 6.3 v; heater current 300 ma; heptode plate voltage 250 v; triode plate voltage 100 v; conversion transconductance 0.77 ma/v; triode transconductance 3.7 ma/v; life 760 hrs. Detailed specification of electrode capacitances is given; also are given seven sets of characteristic curves of the tube.

It is conceded that 6M1П is an inferior copy of the German ECH81 type tube. There are 8 figs in the article.

AVAILABLE: Library of Congress

Card 1/1

Azat'yan, A.

TUBES

"6P14P Power Pentode", by A. Azat'yan, Radio, No 1, January 1958, pp 51-52.

Description of the characteristics and curves for a low-frequency miniature output tube.

Card 1/1

AUTHOR: Azat'yan, A. SOV-107-58-4-45/57

TITLE: The 6P14P Pentode in the Final Stage (Pentod 6P14P v  
skonechnom kaskade)

PERIODICAL: Radio, 1958, Nr 4, pp 51-53 (USSR)

ABSTRACT: The 6P14P pentode is usually adapted as an AF power amplifier. One defect is that above an anode power of 12 w, gas emission from the plate and walls of the tube takes place, spoils the vacuum and leads to a decrease in the emission rate of the cathode and the appearance of an ion current on the control grid. This can be prevented to a large extent by coating the walls of the tube with a gas occluding substance such as metallic barium. The basic working regime for the tube is with a plate voltage of 250 v and an anode power of 12 w, control grid voltage 6.4 v for a plate current of 48 ma, leading to an output of 5.5 to 6 w. Other working regimes, giving a lesser output or with a decreased power supply, are discussed and the relations of the tube characteristics drawn up in graph form (Graph 1-4). Eleven working regimes for the pentode as an AF amplifier are shown in the table form including single-cycle Class A and push-pull Class AB and B

Card 1/2

The 6PL4P Pentode in the Final Stage

SOV-107-58-4-45/57

systems. Three Class A systems for fixed bias and three for automatic bias are given. The problems of rectification and power supply connected with the AB and B systems are discussed and the author mentions that the 6PLP beam tetrode is to be preferred in some cases to the 6PL4P pentode, since it draws less filament power. There are 4 graphs and 1 table.

1. Pentodes--Performance
2. Pentodes--Properties

Card 2/2

*12.17.70, d*

AUTHOR: Azat'yan, A. 107-58-5-29/32

TITLE: Double Triode "6N14P" (Dvoynoy triod "6N14P")

PERIODICAL: Radio, 1958, Nr 5, pp 56 - 57 (USSR)

ABSTRACT: The double triode "6N14P" is a new miniature tube with separate cathodes designed for the amplification of high-frequency oscillations in "cascode" circuits (cascode - cascade triode amplifier with low noise level having the characteristics of a pentode). The incoming signal is led to the grid of one of the triodes and some of the amplified voltage from the plate circuit of the first triode is transmitted to the cathode of the second triod, the grid of which is ground for high-frequency. The voltage amplified by the double triode is conducted to the oscillatory circuit, located in the anode circuit of the second triode. In this way one triode works with a grounded cathode, the other one with a grounded grid. The exterior appearance of the "6N14P" is similar to the double triode "6N3P". The electrode arrangement and the dimensions of the "6N14P" are shown in figure 1. The tube is of a very rigid design and in spite of the small distances between the electrodes, it will work in any position. Both

Card 1/2

Double Triode "6N14P"

107-58-5-29/32

triodes are identical in their characteristics. Heater voltage is 6.3 volts; heater current 0.35 amperes; plate current 10.5 milliamps; maximum plate voltage 180 volts; maximum plate power 1.5 watts; transconductance 6.8 milliamps/volt; amplification factor  $25\mu$ . Capacities within the tube are of importance for its normal operation. Static inter-electrode capacities of the "6N14P" tube, measured at a frequency below 500 kilocycles, are listed in table 2. Figures 2, 3, and 4 are graphics showing the characteristics of the tube. There are 2 tables and 4 figures.

AVAILABLE: Library of Congress  
Card 2/2

AUTHOR: Azat'yan, A. 107-58-7-32/43

TITLE: Using the 6N14P Tube (Primeneniye lampy 6N14P)

PERIODICAL: Radio, 1958, Nr 7, pp 48-50 (USSR)

ABSTRACT: The 6N14P tube is a double triode used mainly as an RF amplifier particularly in VHF and television equipment. To cut down the noise factor of the receiver, great attention must be paid to the first two stages, since these determine to a very great extent the ultimate level of noise at the output. Various schemes for neutralizing the grid-plate capacitance of the tube are given, of which 1,b is chosen as the most practicable (Figure 1). The tube's characteristics and parameters are given. The equivalent noise resistance is 700 ohms so that when the input and antenna circuits are properly matched the RF amplification noise factor is small (at 50-60 mc it is equal to 2, at 200 mc to 5). On Channel XII frequencies, the amplification factor is 50-60 which is sufficient for a triode converter, though not for a pentode. Methods of biasing the 2nd diode of the tube are discussed and that represented in Figure 2a is suggested. The internal screen of the tube is connected to the

Card 1/2

Using the 6N14P Tube

107-58-7-32/43

grid of the output triode. The 6N14P should only be used in cases where one of the triodes has to operate with a grounded grid.

There are 2 sets of circuit diagrams and 1 graph.

1. Twin triodes--Applications
2. Twin triodes--Characteristics

Card 2/2

AUTHOR: Azat'yan, A. SOV-107-58-8-48/53  
TITLE: "Pentode" or "Beam Tetrode"? ("Pentod" ili "luchevoy tetrod")  
PERIODICAL: Radio, 1958, Nr 8, pp 55-57 (USSR)  
ABSTRACT: The author discusses the basis for the classification of vacuum tubes into diodes, triodes, etc, with particular reference to the difference between "pentodes" and "beam tetrodes". The working principle and construction of each of these two types of tube are explained. There are 4 diagrams, 1 table and 1 graph.

1. Electron tubes--Classification 2. Electron tubes--Performance

Card 1/1

TYAGUNOV, G.A., prof.; AZAT'YAN, A.D.; ALEKSANDROV, A.G.; ANTIK, I.V.;  
VASIL'YEV, N.N.; ZHIGAREV, A.A.; KORSHUNOV, S.I.; LEBEDEV, I.V.;  
NILKENDER, R.A.

[Electronic vacuum devices; operating conditions, parameters,  
and characteristics] Elektrovakuumnye pribory; rezhimy,  
parametry i kharakteristiki. Moskva, 1960. 20 p. (Sborniki  
rekomenduemykh terminov AN SSSR, Kom.tekhn.terminologii, no.54)  
(MIRA 14:4)

1. Akademiya nauk SSSR. Komitet tekhnicheskoy terminologii.  
(Electron tubes)

9(4)

SOV/107-60-2-39/52

AUTHOR: Azat'yan, A.

TITLE: The 6G3P Triple Diode - Triode

PERIODICAL: Radio, 1960, Nr 2, pp 47 - 49 (USSR)

ABSTRACT: The author describes in detail a new miniature tube, the 6G3P, which consists of one double diode and one triode with one common cathode, and one diode with a separate cathode (Figure 1). The parameters of the 6G3P are compiled in four tables and five graphs. The amplification factor is 60. Filament voltage and current are 6.3 volts and 450 milliamps. Triode plate voltage and current are 250 volts and 1 milliamp. The control grid voltage is -3 volts. When 5 volts are applied at the diode plates, the rated currents are 1.5, 25, 25 milliamps. The expected service life is 750 hours. The parameters of the 6G3P are compared with those of 6G1, 6G2, 6G7, 6B8S,

Card 1/2

*Azatyanyan, H.*

9.4100

S/107/60/000/07/003/004  
E192/E482 82195

AUTHORS: Azat'yan, A. and Parol', H.

TITLE: Parameters of the Tubes with Electron-Optical Focusing  
(Rod Type Tubes)

PERIODICAL: Radio, 1960, No.7, p.38

TEXT: The rod type receiver-amplifier tubes (types 1Zh17B<sup>25</sup>, 1Zh18B<sup>25</sup>, 1Zh29B<sup>25</sup>, 1P24B<sup>25</sup>) are subminiatures with flying leads. They are furnished with directly heated cathodes operating at 1.2 V; however, in 2 tubes the heater voltage is 2.4 V and the cathodes consist of 2 identical filaments which can be connected in series. The values of the principal electrical parameters of the tubes, their characteristics and the arrangement of the electrodes are illustrated on the inside back cover of the journal. The limiting values of the operating parameters for the tubes are indicated in Table 1. It is seen that the anode voltages do not exceed 150 V and the cathode current is limited to 8 mA. The anode power dissipation is of the order of 1 W. Table 2 shows the ratio of the slope to the anode current  $S/I_a$ , the ratio of the slope to the power used by the tube  $S/P_c$  and the anode-cathode current ratio  $I_a/I_k$ . The anode characteristics of the tubes are  
Card 1/2

AZAT'YAN, A., inzh.

Parameters, modes, and operation of electron tubes. Radio  
no.11:32-35 N '62. (MIRA 15:12)

(Electron tubes)

AZAT'YAN, A., inzh.

Operating modes, parameters, and performance of receiving tubes.  
Radio no.1:35-37, 57 Ja '63. (MIRA; 16:1)  
(Electron tubes)

**AZAFYAN, A.M.**

New analytic method for the economic calculation of the head race of hydroelectric power plants. Izv. AN Arm. SSR. Ser. FMET nauk 7 no.5:51-66 S-O '54. (MIRA 8:7)

1. Yerevanskiy politekhnicheskiy institut imeni K. Marksa.  
(Hydraulic engineering)

MATYAN, A. M., Doc Tech Sci.—(class) "Technical and economic calculations of  
the optimal parameters of irrigation systems, irrigation and natural water canals."  
Yerevan, 1957, 48 pp. (MLA Higher Educ USSR. Leningrad Polytech Inst. <sup>M.I.</sup> Kullianf),  
150 copies. (KL, II, 41, 1957, p. 105)

OGANEZOV, Gurgen Gavrilovich, prof.; AZATYAN, A.M., red.;  
KHALATYAN, V., tekhn. red.

[Lake Sevan and the Gegamskiy Range; new data on volcanoes]  
Sevan i Gegamskii khrebet; novoe o vulkanakh. Erevan, Aipet-  
giukhrat, 1962. 122 p. (MIRA 16:7)  
(Sevan Lake region--Volcanoes)

ORGANEZOV, Gurgen Gavrilovich, prof.; AZATYAN, A.M., red.; AKHIRYAN, Ye.,  
tekh. red.

[Underground waters of the Ararat Depression] Podzemnye vody  
Araratskoi kotloviny. Erevan, Armianskoe gos.izd-vo.  
Vol.3.[Water cycle of the Aragats Massif] Vodnyi balans mas-  
siva Aragats. 1962. 450 p. (MIRA 15:11)  
(Aragats, Mount)

OGANEZOV, Gurgen Gavrilovich, prof.; MERTCHYAN, S.S., akademik,  
retsenzent; ASLANYAN, T.T., doktor geol.-miner. nauk,  
retsenzent; TOLSTIKHIN, N.I., prof., retsenzent;  
AZATYAN, A.M., red.

[Underground waters of the Ararat Plain] Podzemnye vody  
Araratskoi kotloviny. Erevan, Aipetrat. Vol.5. 1964.  
141 p. (MIRA 18:1)

AZATYAN, A.N.

SALINYAN, M.V.; TSATURYAN, A.T., direktor instituta; AZATYAN, A.N., zaveduyushchiy otdelom.

Eradication of tropical malaria from one settlement. Med.paraz.i paraz.bol.  
no.4:338-341 J1-Ag '53. (MLRA 6:9)

1. Epidemiologicheskii otdel Instituta malyarii i meditsinskoy parazitologii  
Ministerstva zdravookhraneniya Armyanskoy SSR. (Malarial fever)

TUMANYAN, Mikhail Galustovich; AGADZHANYAN, G.Kh., otvetstvennyy red.;  
AZATYAN, A.H., red.; MINASYAN, A.K., red.; OVAKIMYAN, A., red.  
izd-va; AZIZBEKYAN, L., tekhn. red.

[Selected works] Izbrannye trudy. Yerevan, Izd-vo Akad. nauk Arman-  
skoi SSR, 1957. 279 p. (MIRA 11:8)

(Wheat)

AZATYAN, A.H. [deceased]

Vertical distribution of malaria in the Armenian S.S.S.R. during  
the period of rapid decrease in number of cases. Med.paraz. i paraz.  
bol. 27 no.3:290-293 My-Je '58 (MIRA 11:7)

1. Iz epidemiologicheskogo sektora Instituta epidemiologii i gigiyeny  
Ministerstva zdravookhraneniya ArmSSR (dir. inatituta G.S. Papovyan).  
(MALARIA, epidemiology,  
in Russia (Rus))

AZATYAN, A.N.

A case of xenia in common string beans. *Izv. AN Arm. SSR, Biol. i sel'khoz. nauki* 6 no. 3:83-84 '53. (MIRA 9:8)

1. Aranyanskiy sel'skokhozyaystvennyy institut.  
(BEANS) (FERTILIZATION OF PLANTS)

A. AZATYAN, A. N.

AZATYAN, A. N. --"Agrobiological peculiarities of the Beans of the Armenian SSR." \* (Dissertations for Degrees in Science and Engineering Defended at USSR Higher Educational Institutions) Acad of Sci Armenian SSR, Division of Biological Sci, Yerevan, 1955

SO: Knishnava Letopis', No. 25, 18 Jun 55

\* For Degree of Doctor of Biological Sciences

AZATYAN, G., slesar'

- Carts without bearings. Prom.Arm. 4 no.6:46-47 Je '61.  
(MIRA 14:8)
1. Kirovskanskiy mashinostroitel'nyy zavod, remontnyy tsekh.  
(Carriages and carts)

FOGOSYAN, M., kand.tekhn.nauk; AZATYAN, K., kand.tekhn.nauk

Industrial and household water supply in Erivan. Prom.  
Arm. 4 no.3:7-10 Mr '61. (MIRA 14:6)  
(Erivan--Water supply)

AZATYAN, K.G., kand.tekhn.nauk (Yerevan)

Concerning B.O.Botuk's article, "Some criticisms about the calculation of aeration tanks." Vod. i san. tekhn. no.9:39-40 S '63. (MIRA 17:2)

AZATYAN, K.G. (Yerevan)

Sums of not absolutely convergent series. Izv. vya. ucheb.  
zav.; nat. no. 3:3-6 '64. (MIRA 17:12)

AZATYAN, M. D.

PHASE I BOOK EXPLOITATION

SOV/4642

Akademiya nauk SSSR. Energeticheskiy institut

Teplenergetika, vyp. 2: Ispol'zovaniye solnechnoy energii (Heat Power Engineering, No. 2: Use of Solar Energy) Moscow, 1960. 195 p. Errata slip inserted. 2,500 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Energeticheskiy institut imeni G.M. Krzhizhanovskogo.

Comp. Ed.: V.A. Baum, Doctor of Technical Sciences, Professor; Ed. of Publishing House: G.B. Gorshkov; Tech. Ed.: I.N. Dorokhina.

PURPOSE: The publication is intended for power engineers and economists interested in the industrial utilization of solar energy.

COVERAGE: This collection of 19 articles is a continuation of an earlier work published under the same title in 1957. The articles present results of investigations conducted in the USSR during the last three years at the Laboratory on the Use of Solar Energy and Wind in the Energeticheskiy institut AN SSSR (Power Engineering Institute of the AS USSR). Problems

Card 1/4

Heat Power (Cont.)

SOV/46/2

In determining the operational indices of solar engines, depending upon the amount of solar energy received, are analyzed. No personalities are mentioned. References follow each article.

TABLE OF CONTENTS:

Introduction	3
Wann, V.A. Trends in Research on the Use of Solar Energy	7
Tarnichevskiy, B.V. Determining the Indices of Operation of Solar Engines Depending on Insolation Conditions	18
Tarnichevskiy, B.V. Selection of Battery Capacity for Regulating the Fluctuations of Energy Production by Solar Power Stations	27
<u>Arabyan, M.D.</u> Estimates of Solar Energy Resources in the Ararat Valley of the Armyanskaya SSR	34
Shahgolev, D.M. Scheduling the Consumption of Energy Generated by a Solar Thermal Power Station	43

~~Page 2/1~~

8/169/62/000/007/093/149  
D228/D307

AUTHOR: Azatyán, M. D.

TITLE: Radiation regime of the territory of the Armenian SSR

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 7, 1962, 21, abstract 7B117 (Tr. 1-y Zakavkazsk. konferentsii molodykh nauchn. sotrudn., posvyashch. vopr. energ., gidravliki-gidrodinamiki i meteorol.-gidrol., Yerevan, 1960, 369-373)

TEXT: The author cites some data on Armenia's radiation regime: the duration of sunshine; the intensity of direct solar radiation and its yearly variation; the summary radiation's annual magnitudes. The atmospheric transparency's annual variation is analyzed at several points, and attention is paid to the influence of local conditions. It is pointed out that the radiation regime must be studied in detail under conditions of the great diversity of the Armenian SSR's topography. / Abstracter's note: Complete translation. / ✓

Card 1/1

BABAYAN, V.O., kand. biolog. nauk; AZATYAN, R.A.

Radiosensitivity of various corn forms. Vop. radiobiol. AN ARM. SSR  
2:221-223 '61. (MIRA 18:4)

BABAYAN, V.O.; AVAKYAN, D.O.; HABAYAN, R.S.; AZATYAN, R.A.

Effect of X rays on the germination of wheat seeds of embryonically  
different age. Izv. AN Arm. SSR. Biol. nauki 17 no.12:13-17 D '64.  
(MIRA 18:3)

1. Laboratoriya radiatsionnoy genetiki AN Armyanskoy SSR.

BAHAYAN, V.O.; AVARYAN, D.O.; BABAYEB, K.S.; AVATYAN, K.A.

Effect of X-ray irradiation of wheat seeds of various ages on the survival and winter hardiness of plants. Izv. UR ANU SSSR. Biol. nauki 18 no.7:28-32 J1 '65. (MIRA 18:8)

1. Laboratoriya radiatsionnoy genetiki AN ArmSSR.

L 27845-65 HWT(m) DIAAP

ACCESSION NR: AP5007517

S/0298/64/017/008/0093/0096

15  
8

AUTHOR: Babayan, V. O.; Avakyan, D. O.; Azatyan, R. A.

TITLE: Radiation sensitivity of various corn varieties

SOURCE: AN ArmSSR. <sup>19</sup> Izvestiya, Biologicheskiye nauki, v. 17, no. 8, 1964, 93-96

TOPIC TAGS: radiation plant effect, plant genetics

Abstract: After studying the yields and plant weight of corn crops from seed subjected to ionizing radiation (100, 500, and 700 r.), and after determining the extent of mutation in the second generation, the authors arrived at the following tentative conclusions: 1) resistance of organisms to ionizing radiation depends in great part on the genetic makeup of the organism, and 2) the conditions, including the genetic makeup, which result in increased vitality and productivity of the organisms also increase the radioresistance. Orig. art. has 2 tables.

ASSOCIATION: Laboratoriya radiatsionnoy genetiki AN ArmSSR (Laboratory of Radiation Genetics, AN ArmSSR)

Card 1/2

L 27843-65

ACCESSION NR: AP5007517

O

SUBMITTED: 30 Mar 64

ENCL: 00

SUB CODE: LS, NP

NO REF SV: 005

OTHER: 001

JFRS

CHERNYKH, M.I.; KULIKOV, N.G.

Adopting a two-stage comminution flow sheet at the Akhta Ore Dressing  
plant. Izvest.mnt. 38 no.7:12-16 Jul '65.

(MIRA 18:8)

ASLANYAN, G.Sh.; ASMAYEVA, A.P.; AVAKYAN, S.O.; AZATYAN, S.A.

Polar distribution of sugars, vitamin C, and enzymatic activity in  
ripe and unripe melons. Izv. AN Arm. SSR. Biol. nauki 13 no. 7:27-  
33 JI '60. (MIRA 13:10)

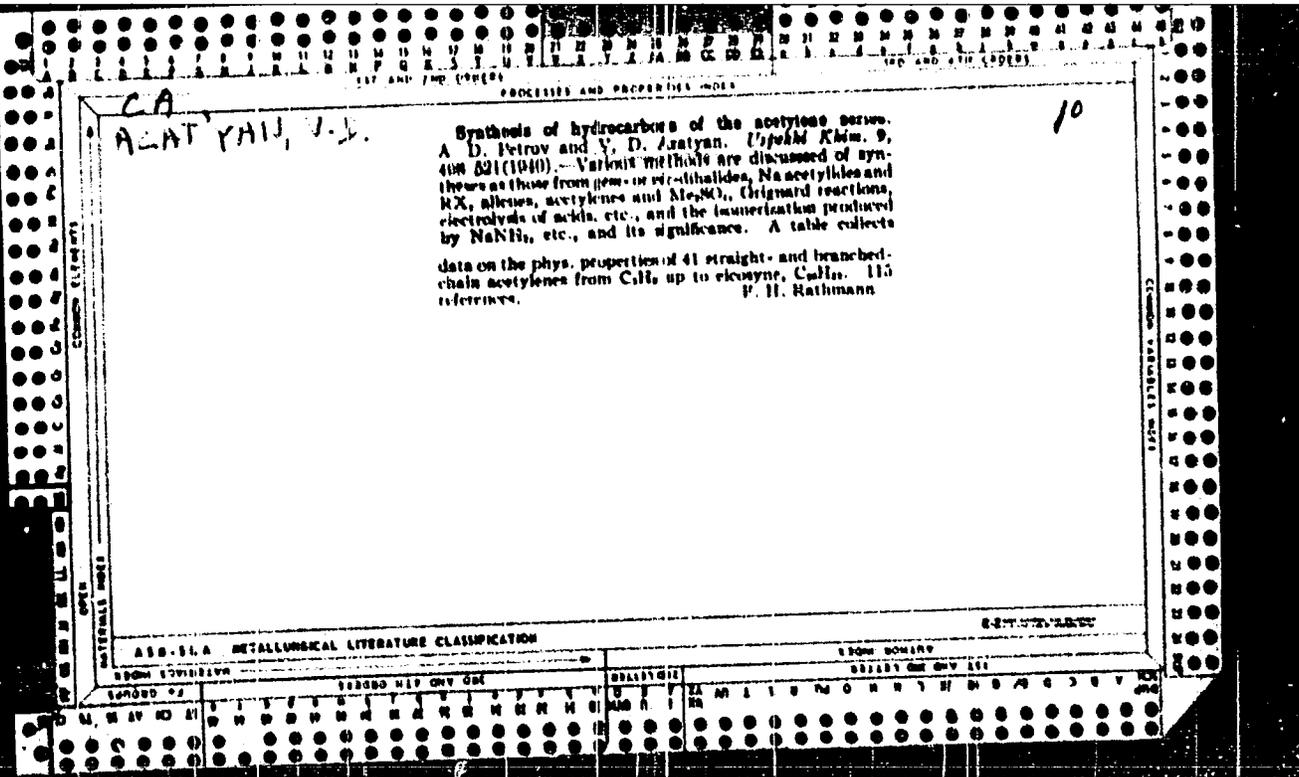
1. Institut zemledeliya Ministerstva sel'skogo khozyaystva  
Armenyanskoj SSR.  
(MELONS) (FRUIT—CHEMICAL COMPOSITION) (POLARITY (BIOLOGY))

CA  
ACAT'YAN, V. D.

10

Synthesis of hydrocarbons of the acetylene series.  
 A. D. Petrov and V. D. Aratyan. *Uspekhi Khim.* 9,  
 408 B21(1940). - Various methods are discussed of syn-  
 theses as those from gem- or vic-dihalides, Na acetylides and  
 RX, alkenes, acetylenes and Me<sub>2</sub>SO, Grignard reactions,  
 electrolysis of acids, etc., and the isomerization produced  
 by NaNH<sub>2</sub>, etc., and its significance. A table collects  
 data on the phys. properties of 41 straight- and branched-  
 chain acetylenes from C<sub>2</sub>H<sub>2</sub> up to eicosyne, C<sub>22</sub>H<sub>2</sub>. 115  
 P. H. Rathmann  
 references.

ASS-51A METALLURGICAL LITERATURE CLASSIFICATION



SHANT'YAN, A. D.

CA

10

Alkene esters of unsaturated monocarboxylic acids of the  $C_3H_5CO_2H$  series. A. D. Petrov and V. D. Azatyan. *J. Applied Chem. (U. S. S. R.)* 13, 1092 (1940). In all expts. the  $HgO$  (1 g.) and  $BF_3 \cdot OEt_2$  (2 g.) catalyst was used. The reaction between acrylic acid and 1-hexene gave  $MeCOBu$  but no ester. Under similar conditions, crotonic acid, m.  $72^\circ$ , in ether with 1-hexene and 1-pentene yielded the corresponding esters (82.4 and 15.0%), bp.  $110^\circ$  and  $66.95^\circ$  (l.  $180.6$  and  $187.5^\circ$ ),  $n_D^{20}$  1.4615 and 1.4503, resp. In both cases hexene and pentene were added to the mixt. of acid in ether and catalyst, within 15 min., while warming the mixt. to  $30^\circ$ ; after 75 min. the product was washed with water and soda soln. and dried over  $CaCl_2$ .  $MeCOBu$  was also obtained in the reaction with hexene. Under similar conditions, undecylic acid and 1-hexene and oleic acid and 1-octene yielded only the corresponding ketones but not esters. Crotonic acid reacted with 3-hexene under similar conditions, yielding the corresponding ester, bp.  $80.5$  ( $92.5^\circ$ ), which was separated with difficulty (prolonged heating). Esters were formed according to scheme I given by Nieuwland, *et al.* (cf. *C. A.* 30, 7537), and ketones according to schemes II and III. A. A. Dolgouy.

ADV. 51.4 - METALLOGRAPHIC LITERATURE CLASSIFICATION

Handwritten notes: *Handwritten text, possibly "Handwritten text" and "eA"*

Preparation of stereoisomeric chlorobutanyl compounds  
 I. Stereoisomers of 1-phenoxy-3-chloro-2-butene. V. D. Azatyan and V. N. Zhamagortzyan (Chem. Inst., Erivan). *Doklady Akad. Nauk Armyan. S.S.R.* 7, 211 (1967) (in Russian).- Addn. of 100 g.  $MeCCl_2CHCl_2$  to 72 g. PhOH and 32 g. KOH in 100 ml.  $H_2O$  over 0.5 hr., shaking 0.5 hr. and letting the mixt. stand (time unstated) gave 26.5 g. 1-phenoxy-3-chloro-2-butene (I), bp 120-20.5°,  $n_D^{20}$  1.5337,  $d_4^{20}$  1.1034, and 25.8 g. isomer, bp 137-7.5°,  $n_D^{20}$  1.5337,  $d_4^{20}$  1.1337 whose b.p. slowly falls to that of the 1st isomer on prolonged heating. Similar results are obtained when PhOH is treated with powd. KOH and the semisolid mass is treated with the dichloride. The higher-boiling isomer gives a neg. test with  $FeCl_3$ ; oxidation with  $KMnO_4$  yields  $PhOCH_2CO_2H$  from both isomers, while alc.

KOH at reflux yields phenoxy-2-butyne, b.p. 100.5-10.5°,  $n_D^{20}$  1.5392,  $d_4^{20}$  1.0367. G. M. Kosolapoff

424724, V. D.

3

1,3,5-cyclohexatriene (R = H) with AcCl gives 30%  
 (R = Ac) (I), bp 120-30°, n<sub>D</sub><sup>20</sup> 1.4659. I (R =  
 Na) with A. Br gives 42% II. I with R<sub>2</sub>MgBr gives 28%  
 I (R = Me) (III), bp 20-5°. I (R = Et) with  
 MeCOCl gives 48.3% I (R = MeCO) (IV), bp 170-80°.  
 III with p-MeC<sub>6</sub>H<sub>4</sub>COCl gives 5.7% of the corresponding  
 cyclic ether, bp 127-32°. Cf. A. C. Depe and P. A. Hochstein,  
 C.A. 44, 9028t.

①

Handwritten mark

7-Khimicheskiy inst. Akademii Nauk Armyanskoy  
 SSR. Predstavleno A.L. Mirdzoyanin.  
 (Glycolic)

Asatryan, V. D.

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*Chem* Oxidation of cyclohexene with potassium dichromate. V. D. Asatryan and I. S. Gvishvili, *Doklady Akad. Nauk S.S.S.R.* 21, No. 5, 211 (1955) (in Russian).  
 Cyclohexene (I) (11 g.) in 11 g. AcOH and 11 g. Ac<sub>2</sub>O treated in 4 portions over 1 hr. with 1.4 g. H<sub>2</sub>SO<sub>4</sub>, and the mixt. kept 25 hrs. at 100-105° yielded 38.5% cyclohexenyl acetate (II), bp 113-15°, d<sub>4</sub><sup>20</sup> 0.9657, n<sub>D</sub><sup>20</sup> 1.4812. I (14 g.), 28 g. AcOH, and 28 g. Ac<sub>2</sub>O treated in 1 hr. with 5.5 g. H<sub>2</sub>SO<sub>4</sub>, then heated 19.5 hrs. at 111-117°, gave 5 g. cyclohexenyl acetate (III), bp 138-60°, n<sub>D</sub><sup>20</sup> 1.4836, d<sub>4</sub><sup>20</sup> 1.0220. Oxidation of 6.3 g. II in 15 g. AcOH and 15 g. Ac<sub>2</sub>O with 21 g. H<sub>2</sub>SO<sub>4</sub>, slowly 13 hrs. at 110-20°, gave 27% III. Heating I with liq. K<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub> gave 75% 3-cyclohex-1-ol, bp 101.3-5°, n<sub>D</sub><sup>20</sup> 1.4500, d<sub>4</sub><sup>20</sup> 1.0555, hydrogenated over Pt to cyclohexanol.  
 G. M. Kopylov.

*RM*

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~~Chemical terms in a Latin-Russian-Armenian dictionary and some~~  
Chemical terms in a Latin-Russian-Armenian dictionary and some  
problems of chemical terminology [in Armenian]. Izv.AN Arm.SSR.  
Ser.FMET nauk 9 no.8:101-106 '56. (MLRA 10:2)  
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